

Amendments to the Claims

Please amend the claims as indicated below. All claims are listed below, with amended claims so marked. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for establishing a communication session through a network translation device with a communication protocol utilizing a single communication port for both setting up the communication session and transferring data during the communication session, the method comprising:

preparing a session setup for a session with a first machine, the session setup identifying an internal origin address and a first internal port to which the first machine expects a response to the session setup;

sending the session setup to a second machine through the network translation device, the second machine at least temporarily an endpoint to the communication session and being configured to recognize if the session setup includes the internal origin address and if so to associate with the first machine the routable external origin address of the network translation device;

receiving by the first machine a communication session initiation request from a third machine, said initiation having an associated external address/port for the third machine; and

sending an acknowledgement to said initiation to the external address/port so as to prime the network translation device to receive the session from the third machine.

2. (Currently Amended) The method ~~protocol~~ of claim 1, further comprising:

sending content for the communication session from the first machine to the third machine, wherein the third machine is configured to wait for the content from the first machine before the third machine sends content to the first machine.

3. (Currently Amended) The method ~~protocol~~ of claim 1, further comprising:

receiving data for the session from the third machine responsive to said priming.

4. (Currently Amended) The method ~~protocol~~ of claim 1 wherein the protocol comprises modification to an original communication protocol requiring utilizing different communication ports for setting up the communication session and transferring data during the communication session.

5. (Currently Amended) The method ~~protocol~~ of claim 1, wherein the session setup includes an alias for the first machine unrelated to a network address, and the second machine includes a registration server operable to perform:

receiving the session setup, said session setup including the alias;

examining the session setup to identify whether the session setup comprises the internal origin address for the first machine; and if so,

registering the first machine with respect to the alias and the external origin address.

6. (Cancelled)

7. (Currently Amended) The method protocol of claim [6] 1, further comprising the network translation device performing:

receiving the initiation for the session from the second machine; and

translating the session acknowledgement for delivery to the first machine at the internal origin address.

8. (Currently Amended) A method for a registration server to facilitate communicating between a first endpoint behind a network address translator (NAT) and a second endpoint, comprising:

receiving a first registration for the first endpoint according to a protocol utilizing a single communication port for both setting up and transferring data during a communication session ~~and transferring data during the communication session~~, said registration comprising an embedded network address, ~~embedded~~ port primed by the first endpoint, and ~~embedded~~ alias for the first endpoint, ~~wherein said priming by the first endpoint including~~ es] sending data from the first endpoint using the ~~embedded~~ port to prime the NAT to receive responsive data on the port ~~in accord with said modified protocol~~;

determining the embedded network address is a non-routable address; and

registering the first endpoint with an the apparent origin address, embedded port,
and embedded alias;

receiving from the second endpoint a resolution request for the alias and replying
to said request with at least the apparent origin address;

receiving an initiation for the session from the second endpoint;

forwarding the session setup to the first endpoint at the apparent origin address;

and

determining whether the second network address is routable, and if so, waiting
for data to be sent to the second endpoint from the first endpoint.

9. (Cancelled)

10. (Currently Amended) The method of claim [9] 8, further comprising:

~~determining by the third machine whether the second network address is
routable; and if so, waiting by the third machine for audiovisual~~

wherein the data to be sent to the second endpoint from the first endpoint
comprises audiovisual data.

11 - 20. (Cancelled)

21. (Currently Amended) A method for a first endpoint internal to a network
translation device to set up a communication session with a second endpoint external to
the network translation device, the method comprising:

contacting a registration server to resolve an alias for the second endpoint;
receiving a first session registration from the registration server, the first session registration comprising a network address for the second endpoint that is routable, and a content port to which content should be sent to for the second endpoint; and
modifying a protocol for the communication session requiring the first endpoint to complete setting up the communication session and await receiving content from the second endpoint, said modifying including the first end point being configured to prime
~~priming~~ the network translation device[,] by sending at least one network packet to the second endpoint at the routable address on the content port, before said completing setting up the communication session with the second endpoint; and
after said priming the network translation device, receiving content for the communication session on the content port.

22. (Original) The method of claim 21, further comprising:
sending a second session registration for the first endpoint to the registration server, the second session registration comprising a network address for the first endpoint that is non-routable.

23. (Original) The method of claim 22, further comprising the registration server:
receiving the second session registration for the first endpoint from a routable network address associated with the network translation device;

identifying that the second session registration comprises a network address that is non-routable, and responsive thereto, registering the first endpoint with respect to the routable network address associated with the network translation device;

receiving the first session registration for the second endpoint; and

identifying that the second session registration comprises a network address that is routable, and responsive thereto, registering the first endpoint in accord with the first session registration.

24. (Original) The method of claim 22, further comprising:

wherein the registration server is configured to identify the non-routable network address within the second session registration, and responsive to said identifying, registering the first endpoint with respect to a routable address associated with the network translation device.

25 – 30. (Cancelled)

31. (New) Machine-readable media having associated instructions for establishing a communication session through a network translation device with a communication protocol utilizing a single communication port for both setting up the communication session and transferring data during the communication session, wherein the instructions, if executed by one or more machines, results in:

preparing a session setup for a session with a first machine, the session setup identifying an internal origin address and a first internal port to which the first machine expects a response to the session setup;

sending the session setup to a second machine through the network translation device, the second machine at least temporarily an endpoint to the communication session and being configured to recognize if the session setup includes the internal origin address and if so to associate with the first machine the routable external origin address of the network translation device;

receiving by the first machine a communication session initiation request from a third machine, said initiation having an associated external address/port for the third machine; and

sending an acknowledgement to said initiation to the external address/port so as to prime the network translation device to receive the session from the third machine.

32. (New) The media of claim 31 wherein the machine-readable media further include instructions, which when executed by one or more of machines, results in:

sending content for the communication session from the first machine to the third machine, wherein the third machine is configured to wait for the content from the first machine before the third machine sends content to the first machine.

33. (New) The media of claim 31 wherein the machine-readable media further include instructions, which when executed by one or more of machines, results in:

receiving data for the session from the third machine responsive to said priming.

34. (New) The media of claim 31 wherein at least a portion of said instructions comprises modification to an original communication protocol requiring utilizing different

communication ports for setting up the communication session and transferring data during the communication session.

35. (New) The media of claim 31 wherein the session setup includes an alias for the first machine unrelated to a network address and the second machine includes a registration server, and wherein selected ones of the machine-readable media further include instructions, which when executed by the registration server, results in:

receiving the session setup, said session setup including the alias;

examining the session setup to identify whether the session setup comprises the internal origin address for the first machine; and if so,

registering the first machine with respect to the alias and the external origin address.

36. (New) The media of claim 31 wherein instructions executed by the network translation device results in the network translation device performing:

receiving the initiation for the session from the second machine; and

translating the session acknowledgement for delivery to the first machine at the internal origin address.

37. (New) An apparatus comprising a machine-readable medium having associated instructions for a registration server to facilitate communicating between a first endpoint behind a network address translator (NAT) and a second endpoint, wherein the instructions, if executed, results in:

receiving a first registration for the first endpoint according to a protocol utilizing a single communication port for both setting up and transferring data during a communication session, said registration comprising an embedded network address, port primed by the first endpoint, and alias for the first endpoint, said priming including sending data from the first endpoint using the port to prime the NAT to receive responsive data on the port;

determining the embedded network address is a non-routable address; and
registering the first endpoint with an apparent origin address, embedded port, and embedded alias;

receiving from the second endpoint a resolution request for the alias and replying to said request with at least the apparent origin address;

receiving an initiation for the session from the second endpoint;

forwarding the session setup to the first endpoint at the apparent origin address;
and

determining whether the second network address is routable, and if so, waiting for data to be sent to the second endpoint from the first endpoint.

38. (New) The apparatus of claim 37, wherein the data to be sent to the second endpoint from the first endpoint comprises audiovisual data.

39. (New) Machine-readable media having associated instructions for for a first endpoint internal to a network translation device to set up a communication session

with a second endpoint external to the network translation device, wherein the instructions, if executed by one or more machines, results in:

- contacting a registration server to resolve an alias for the second endpoint;
- receiving a first session registration from the registration server, the first session registration comprising a network address for the second endpoint that is routable, and a content port to which content should be sent to for the second endpoint; and
- modifying a protocol for the communication session requiring the first endpoint to complete setting up the communication session and await receiving content from the second endpoint, said modifying including the first end point being configured to prime the network translation device by sending at least one network packet to the second endpoint at the routable address on the content port, before said completing setting up the communication session with the second endpoint; and
- after said priming the network translation device, receiving content for the communication session on the content port.

40. (New) The machine-readable media of claim 39 wherein the instructions include further instructions, which if executed, results in :

- sending a second session registration for the first endpoint to the registration server, the second session registration comprising a network address for the first endpoint that is non-routable.

41. (New) The machine-readable media of claim 40 wherein the instructions include further instructions, which if executed by the registration server, results in the registration server:

receiving the second session registration for the first endpoint from a routable network address associated with the network translation device;

identifying that the second session registration comprises a network address that is non-routable, and responsive thereto, registering the first endpoint with respect to the routable network address associated with the network translation device;

receiving the first session registration for the second endpoint; and

identifying that the second session registration comprises a network address that is routable, and responsive thereto, registering the first endpoint in accord with the first session registration.

42. (New) The machine-readable media of claim 40, wherein the registration server is configured to identify the non-routable network address within the second session registration, and responsive to said identifying, registering the first endpoint with respect to a routable address associated with the network translation device.